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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
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08/770,792 12/19/96 KOYAMA J 07977/105001

MMC2/0926

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EXAMINER

NGD, H

ART UNIT

PAPER NUMBER

2871

DATE MAILED:

09/26/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/770,792

Applicant(s)
Koyama et al

Examiner
Julie-Huyen L. Ngo

Group Art Unit
2871



☒ Responsive to communication(s) filed on Aug 14, 2000

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 2, 4-6, 10, 12-14, 17, and 21-60 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 2, 4-6, 10, 12-14, 17, and 21-60 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 23

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Continued Prosecution Application

The request filed on August 14, 2000 for a Continued Prosecution Application (CPA) under 37 CFR 1.53(d) based on parent Application No. 08/770,792 is acceptable and a CPA has been established. An action on the CPA follows.

Information Disclosure Statement

The information disclosure statement filed on August 14, 2000, Paper No. 23, has been considered.

Specification

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. ✓

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

Claims 57-60 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Sawatsubashi et al. (U.S. 5,148,301). ✓

Sawatsubashi et al. disclose (Cols. 4-6 and Figures 3-5) an active matrix liquid crystal display comprising:

a plurality of pixel TFTs (104) arranged in rows and columns over a TFT substrate (101) and arrayed in a matrix;

driver TFTs formed over said TFT substrate and forming a driver circuit (112/113) for driving said pixel TFTs;

a layer of a liquid crystal material (109) with which said pixel TFTs and driver TFTs are in contact directly or via a thin film (106);

a counter substrate (102) located opposite to said TFT substrate;

a sealing material (108) provided between said TFT substrate (101) and said counter substrate (102) and inside a side edge of said counter substrate and a side edge of said TFT substrate, said sealing material (108) being provided outside at least said pixel TFTs (104) and driver TFTs; and

a control circuit (112a/112b or 113a/113b) provided under and in contact with said sealing material (108) for controlling said driver circuit.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 2, 4-6, 10, 12-14, 17 and 21-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sawatsubashi et al. in view of Hinata et al (U.S. 5,610,742).

The limitations of claims 10, 12-14, 24, 25, 42-44, 49, 50, 55 and 56, which recite the methods of fabricating an active matrix liquid crystal display device, have not been given patentable weight because it has been held that even though product-by-process claims are limited by and defined by process, determination of patentability is based on the product itself. See *In re Thorpe*, 777 F.2d 695,697, 227 USPQ 964, 966 (Federal Cir. 1985). In addition, since the method claims are just the steps of forming the elements of the device, the method claims would have been obvious in view of the device. Therefore, the method claims are treated below with the corresponding device claims.

Sawatsubashi et al. disclose an active matrix liquid crystal display comprising all elements recited in claims 2, 4-6, 10, 12-14, 17 and 21-56 except for a non-conductive or weakly conductive material applied to the side edge of the TFT substrate (101), the side edge of the counter substrate (102) and the side edge of the bus line (Gm/Dn).

However, Hinata et al. teach (abstract and related description of figures 1-5) sealing the side edges of the substrates in the liquid crystal display with epoxy adhesive or flexible gas barrier films (13) to decrease poor display performance caused by bubble formation.

Therefore, it would have been obvious to one of ordinary skill in the art to apply a flexible gas barrier film or a nonconductive film (13) to the side edges of the substrates, as taught by

Hinata et al., in the active matrix liquid crystal display of Sawatsubashi et al. for reducing poor display performance. Furthermore, since the side edge of the bus line is aligned and inside the TFT substrate, it would have been obvious to one of ordinary skill in the art to apply a flexible gas barrier film or a nonconductive film (13) to the side edge of the bus line as well, as taught by Hinata et al., in the active matrix liquid crystal display of Sawatsubashi et al. for reducing poor display performance.

Response to Applicant's Remarks

Applicant's remarks, filed on June 19, 2000, have been fully considered but are moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hirakata et al. (6,072,556) disclose a liquid crystal display with an adjustment layer to even out height different in the sealant region.

Chiyou et al. (JP410010544A) and Zhang et al.(6,055,034) disclose a liquid crystal display/photo device having sealing material on the peripheral driving circuit.

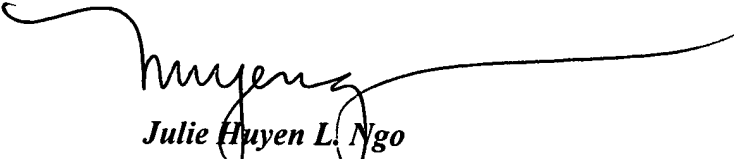
Matsuo, Mutsumi (JP401049022A) discloses a liquid crystal panel housing driver in the panel.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie Ngo whose telephone number is (703) 305-3508.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0956.

JHLN
September 20, 2000


Julie Huyen L. Ngo
Patent Examiner
Group 2871